

CLAIMS

1. A device for the controlled delivery of an injectable liquid from a liquid container sealed at a rear end by a piston which can be slid axially in said container to deliver the liquid from an outlet at a front end of the container, comprising:
 - a flexible force transferring means which is axially deviated behind the container away from a generally central longitudinal axis of the container;
 - a drive mechanism which is coupled to said flexible force transferring means to axially advance the piston for delivering the liquid; and
 - a restoring means, wherein said restoring means applies a restoring force to said drive mechanism and resets it for delivering liquid from the container.
2. The device as set forth in claim 1, wherein the restoring means permanently applies said restoring force to the drive mechanism in order to reset it from a starting position in which the piston is situated substantially at the rear end of the liquid container to an end position in which the piston is situated substantially at the front end of the liquid container.
3. The device as set forth in claim 1, wherein the drive mechanism comprises a drive wheel and the flexible force transferring means is attached to a lateral facing area of said drive wheel.
4. The device as set forth in claim 3, further comprising an adjustable locking means for providing controlled locking against an angular adjustment of the drive wheel.
5. The device as set forth in claim 4, wherein said locking means comprises a blocking projection which cooperates with an outer toothed area of the drive mechanism.
6. The device as set forth in claim 5, wherein said blocking projection is respectively arranged at an end of a rocking lever which is moveable to a releasing position in which the drive mechanism is released by advancing an operating button, and can be reset into a locking position, in which the drive mechanism is locked, by a second restoring means.

7. The device as set forth in claim 2, wherein, in the starting position of the piston, a region in which the flexible force transferring means is attached to the drive mechanism is substantially arranged diametrically opposite the rear end of the liquid container.
8. The device as set forth in claim 2, wherein the locking means is configured to enable a controlled advancement of the piston by a fraction of the maximum piston stroke pre-set by the starting and end positions of the piston in the liquid container.
9. The device as set forth in claim 8, wherein the locking means comprises a rocking lever which comprises blocking projections on mutually opposite sides of a rotational point of said rocking lever, said blocking projections cooperating with teeth on the drive wheel.
10. The device as set forth in claim 9, wherein the two blocking projections are offset with respect to each other by half a tooth of said outer teeth.
11. The device as set forth in claim 1, wherein the drive mechanism is configured, when delivering the liquid, to emit a number of clicks corresponding to the dosage of liquid delivered.
12. The device as set forth in claim 1, wherein the flexible force transferring means is a cylindrical coil spring which is block-coiled in a region in which the coil spring is coupled to the drive mechanism.
13. The device as set forth in claim 1, wherein the substantially elongated flexible force transferring means is guided by a guide which deviates the restoring means away from the longitudinal axis of the container, and said guide is configured to at least as far as possible inhibit the flexible force transferring means from bending laterally, away from its longitudinal axis.
14. The device as set forth in claim 13, wherein the guide is formed by a lower and an upper half-casing of the device and by at least one stay projecting substantially perpendicularly from a respective half-casing.

15. The device as set forth in claim 1, wherein one of a 30-gauge or 31-gauge injection needle for injecting the liquid is provided on the front end of the container.
16. A device for the controlled delivery of an injectable liquid from a liquid container wherein:
 - a flexible force transferring means transfers a drive force of a rotatable drive wheel to a piston which slides axially in the device;
 - a restoring force of a spring is applied to the drive wheel to move the piston; and
 - a locking means locks the drive wheel against rotation and releases the drive wheel for rotation.
17. The device of claim 16, wherein the amount of liquid delivered is indicated by audible clicks.
18. The device of claim 16, wherein the drive wheel moves incrementally when the locking means releases the drive wheel.